

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 39734-176842	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 01/ 46177	International filing date (day/month/year) 07/12/2001	(Earliest) Priority Date (day/month/year)
Applicant SCHWEITZER CHEMICAL CORPORATION USA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.

1



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/46177

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C07K16/10 G01N33/577 G01N33/569 G01N33/543 A61K39/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, WPI Data, PAJ, EPO-Internal, SEQUENCE SEARCH

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 006 178 A (NATIONAL SCIENCE COUNCIL) 7 June 2000 (2000-06-07) the whole document	1-12, 26-39
Y	---	13-25
Y	WO 88 07586 A (BIO-RESEARCH LABORATORIES) 6 October 1988 (1988-10-06) the whole document	13-25
A	--- S. CHI ET AL.: "Characterization of grouper nervous necrosis virus (GNNV)." JOURNAL OF FISH DISEASES, vol. 24, no. 1, January 2001 (2001-01), pages 3-13, XP002229784 GB abstract -----	13-25

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

10 February 2003

Date of mailing of the international search report

24/02/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Nooij, F

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-3 (all partially), 4 (completely), 6 (partially), 7 (completely), 9-21 (all partially), 22, 23 (both completely)

Antibody having binding specificity for nervous necrosis virus (NNV), wherein said virus is replicated in an immortal cell line from *Epinephelus coioides* having an ATCC accession No. PTA-859. Methods for preparing said antibody. Immunoassay for detecting said virus, using said antibody.

2. Claims: 1-3 (all partially), 5 (completely), 6 (partially), 8 (completely), 9-21 (all partially), 24, 25 (both completely)

Antibody having binding specificity for infectious pancreatic necrosis virus (IPNV), wherein said virus is replicated in an immortal cell line from *Epinephelus coioides* having an ATCC accession No. PTA-859. Methods for preparing said antibody. Immunoassay for detecting said virus, using said antibody.

3. Claims: 26 (partially), 27, 28 (both completely), 31-33 (all partially), 34, 35 (both completely)

Vaccine for immunizing susceptible fish against NNV infection comprising an immunologically effective amount of NNV, wherein said NNV is produced in an immortal cell line from *Epinephelus coioides* having an ATCC deposit No. PTA-859, and wherein said NNV is modified to become non-infective to said susceptible fish.

4. Claims: 26 (partially), 29, 30 (both completely), 31-33 (all partially), 36-39 (all completely)

Vaccine for immunizing susceptible fish against IPNV infection comprising an immunologically effective amount of IPNV, wherein said IPNV is produced in an immortal cell line from *Epinephelus coioides* having an ATCC deposit No. PTA-859, and wherein said IPNV is modified to become non-infective to said susceptible fish.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 33-39 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.1

Claims Nos.: 6-8,10,12 (all partially)

Claims 6-8, 10 and 12 refer to a method for preparing an antibody comprising injecting an effective amount of virus to an antibody producing animal to stimulate an immune response. Said animal may also comprise a human being. The latter is not admissible under Rule 9.1(i) PCT.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 01/46177

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 6-8, 10, 12 (all partially)
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/46177

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1006178	A	07-06-2000	EP 1006178 A2	07-06-2000
			US 2002159993 A1	31-10-2002
			US 6436702 B1	20-08-2002
			US 2002164787 A1	07-11-2002
WO 8807586	A	06-10-1988	DK 151087 A	26-09-1988
			AU 1780188 A	02-11-1988
			WO 8807586 A1	06-10-1988